

ABSTRACT OF THE DISCLOSURE

A cartridge removably installed on a working device and having (a) a passage which is formed so as to extend in a direction of movement of the cartridge for installation thereof on the working device and which has an open end open at one end of the cartridge, and (b) a non-reversibly changing member disposed in the passage, at a suitable distance from the open end, and changeable from a first state for a first relationship with the projecting member, to a second state for a second relationship with the projecting member, the non-reversibly changing member being unable to change from the second state back to the first state. The state of this cartridge may be detected by a cartridge detecting device including a projecting member insertable into the passage through the opening as the cartridge is moved for installation, the projecting member being movable in the direction of movement of the cartridge, a first detector operable by the cartridge when the cartridge is moved for installation, a second detector operable by the projecting member, depending upon whether the non-reversibly changing member is placed in the first or second state, during the movement of the cartridge, and a determining portion operable to determine the state of the cartridge on the basis of outputs of the first and second detectors.